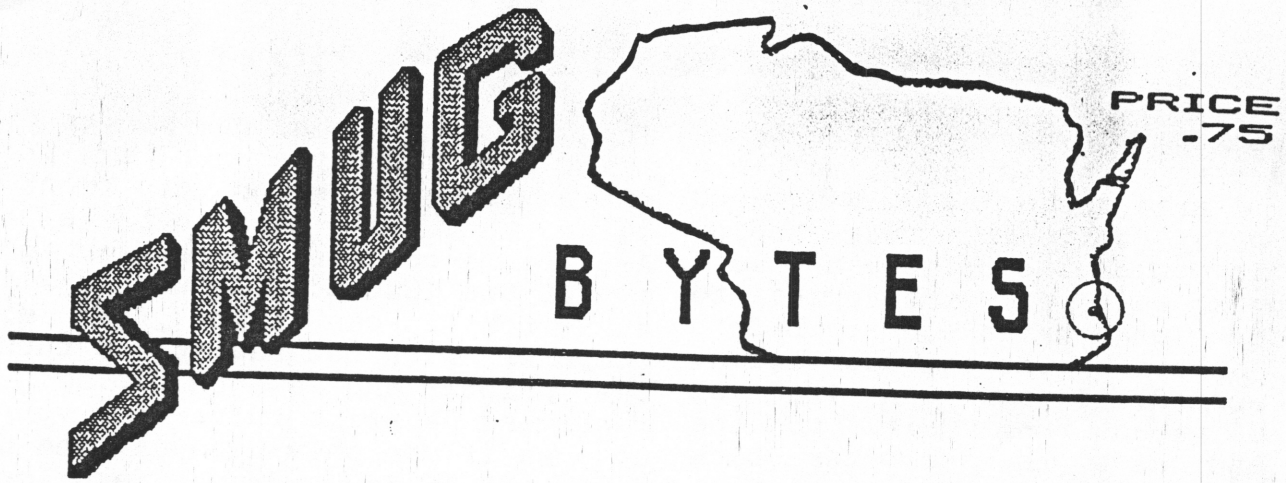


SMUG BYTES
Volume 6, Number 7
July 1989

Subscriptions = $10.00 per year or free with swap. Send to:

SINCLAIR MILWAUKEE USERS GROUP
P.O. Box 101, Butler WI 53007

THIS MONTH:

- TS2068 Utilities
- Rudy's SQ Notes.
- Changing Quill Print Driver
- Presidents Message
- And Other Great Things

If any articles are copied please credit SMUG BYTES

NEXT MEETING DATE: 08/02/89

Send all contributions by the 3rd Wednesday of the month to:

Bill Heberlein
Editor
SMUG BYTES
5052 N. 91st Street
Milwaukee WI 53225

1989 OFFICERS & WORKING MEMBERS

All Area Codes Are 414

*President - Neal Schultz
- 353 4522
*V. Pres. - W. Heberlein
- 527 2191
*Secretary - L. Dreger
- 321 0694
*Treasurer - A. Doneis
- 344 4694
*Education - R. Cultice
- 542 3591

* - Librarians
*Tape/Disk -E. Pawlowski
1 - 338 0260
*Book - D. Nickel
1 - 284 9691

* - Sub Group Leaders
*"C" - R. Cultice
Meeting Alt. Sundays of the month
- 542 3591
*Games - N. Schultz
Meeting 3rd Saturday of the month
- 353 4522
*Hardware - G. Kraemer
*Meet-no set date. Call for info.
- 421 0179
*Q1 - R. Hilsmann
*Meeting 3rd Wednesday of month
- 251 5291
*Spectrum - R.Hilsmann
*Meeting 3rd Wednesday of month
- 251 5291

(NOTE NEITHER ANY AUTHOR OR SMUG BYTES TAKES ANY RESPONSIBILITY FOR ANY HARDWARE MODIFICATIONS TO YOUR EQUIPMENT.)

MULTIPLE COPIES IN QUILL

Well I hooked up my print buffer to my QL to see if I could print multiple copies of articles using my 64K Micro Stuffer print buffer. I was hoping that this would also relieve the idea of having to wait for the print to finish, on long print jobs, before gaining access to the computer again. Well it worked. I now can load at least 8 pages from Quill to the printer and have the computer back before only two pages are printed. This is great as now I can write my article and while it is printing I can start on some thing else. It doesn't even have to be in Quill.

This works great for labels also. If the lables don't line up just stop the printer, realign them and push the repeat button on the buffer.

This setup also allows me to change print size and type. On my printer there is switches on the front that allow that. If I wish to buy a 36 pin A-B box I can tie the buffer to both my QL and TS2068. Then with a flip of a switch I can print from either computer with out having to turn off the printer and switch cables. I do recommend a print buffer for your set up even if you only use just the QL or just the TS2068. If you are looking for a print buffer you can check your local computer dealer. They probably will have one but the cost may be more than one from are Sinclair dealers. I got mine from RMG Enterprises. Check it out.

2nd BYTES

The new Computer Store

For Not-So-New Computers

* SAVE THE HASSLE. have 2nd BYTES sell your " unused " computer, peripherals and software.
  - We are in the Business to sell your computer.

* SAVE MONEY. buy your computer, peripheral and software at 2nd BYTES.

* SAVE TIME. have our professional consultants assist you in finding the computer and the programs for your needs.
  - We are in the business to help you select an inexpensive system.

* WARRANTY. on almost all equipment we sell.
  - We service what we sell.

774-1155

9721 W. Greenfield Avenue West Allis WI 53214

"SQ" NOTES

BY R.A.HILSMANN

After a nice vacation in Europe, back to work! Vacations are never long enough it seems, but what prevents one from longer vacations is not the lack of time of course, but the lack of funds (what else is new?). Guess it would be nice to be rich!

What's new in Europe? Well, besides the fact that countries in Europe are more affluent then they have ever been, not much. The computer craze has shifted to IBM and IBM compatibles. Schneider seems to be the bigest name in compatibles, at least in Germany, where I spend most of my time. I looked around for signs of Sinclair, but couldn't even find a magazine that had mention of Sinclair computers in them. This may of course be different in Britain, but on the mainland in Europe this is not the case. Even in the past Comodore was better known than Sinclair, not much different as it is in this country, again don't forget I am talking about the mainland of Europe, not Britain.

I just aquired a RGB monitor for my QL computer, naturally, since I like to keep cost to a minimum, it is one of the cheapest one, a Franklin MC-1400TS, which I picked up for $150. Of course, having a Sinclair computer, one does not just plug something like that in on the output port for such a device, but let me talk about what needs to be done to make it work on the QL since I could not find much about it in all the papers I had on the QL.

The Franklin monitor is configured to IBM standard, having a 9 pin D connector on the end of its input cable. Input on all pins on this D connector must also be IBM standard for RGB monitors.

In the next column the IBM standard inputs needed on the D connector:

Pin #1 = Ground
Pin #2 = Ground
Pin #3 = R(ed)
Pin #4 = G(reen)
Pin #5 = B(lue)
Pin #6 = Intensity
Pin #7 = Not connected
Pin #8 = Horizontal Sync
Pin #9 = Vertical Sync

All inputs have to be TTL, (positive Ø to 5 volt). The QL has all the above outputs, but horizontal sync (composite sync) is negative, therefore any IBM standard monitor will not work. There is a fix for that, the output on pin 4 of the DIN connector (on the QL) has to be inverted. This could be done by wiring an extra chip onto the cable, or much better, open your QL, and bend pin 12 of IC22 (ZX8301) out, so that it is not inserted into the socket. Pin 1 to 6 on the 74HCØ4 chip on the Spider Board, found siliconed onto the memory chips, are not used, solder two wires to either pin 1&2, 3&4 or 5&6, strip the other end of the wire coming from either pin 2, 4 or 6 a bit more than a quarter inch, fold the striped end, and insert it into the socket where pin 12 would normally be inserted. Re-insert the ZX8301 chip into its socket, making sure pin 12 is bend out, and does not make contact with the wire you inserted (also make sure the bend pin does not touch any pin on the 68008 chip next to it). Now solder the remaining wire from the 74HCØ4 chip to pin 12 of the ZX8301 chip.

This completes the conversion (after you have managed to put your QL back together) of your QL to IBM standard. Most RGB monitors on the market can now be connected to your QL. All the above of course is not necessary if you buy a Magnovox RGB monitor. Will your monitor still flicker in the monitor mode? Yes, if you look close the 50 cycle refresh is still noticeable, but not quite as bad, at least not on the Franklin. Perhaps after the outputs from the ZX8301 chips are buffered....?

If you do not have a RGB cable that has been made for the Q1, you will need a 8 pin DIN connector, a 9 pin D connector (female), and a 6 wire cable. Connections are as follows:

D CONNECTOR		DIN CONNECTOR
PIN #1	---------->	PIN #2
PIN #2	---------->	PIN #2
PIN #3	---------->	PIN #7
PIN #4	---------->	PIN #6
PIN #5	---------->	PIN #8
PIN #6	---------->	NOT CONNECTED
PIN #7	---------->	NOT CONNECTED
PIN #8	---------->	PIN #4
PIN #9	---------->	PIN #5
CASE	---------->	SHIELD

Further improvements to your QL should be made, such as to buffer the monitor output from the ZX83Ø1, something I have not done at this time. There are more fixes for your QL to be found in the past issues of Quantum Levels (and I am sure in future issues).

Now let me talk about something else, I have been working on a new terminal program for the QL, sure there are some on the market, and I do have one I have used in the past called "QLTERM", nice program if you are into Bulletin Boards per Telephone, but I need one for Packet Radio! A different environment.

I also have the compiler "Turbo" available, which I had bought along with other software from a friend who decided to get into a 'better' computer! So, you guessed it, I been using this compiler to get my new terminal program to run faster, and also to multi-task.

Sounds easy enough doesn't it? Well, Turbo is a nice compiler, and comes along with a toolkit, which has a bucket full of new commands one can write a program with, fact is, some very powerfull commands, which really would make live a lot easier. Only one problem! The documentation is written in a language I can not read, and I can read a few more than most people. It took me longer to find an explanation for some of the commands in the toolkit, and how to implement them, as to write the whole program itself. I had to read the manual over and over again to find out what they meant. It would be nice if someone would write a manual for the manual!!

Examples would have been nice to take over where the manual left off, or just a program written, using all new commands in their proper syntax, would have been more help. There are still a few commands, and their implementation, vital to the program I am writing, which I am not able to apply. Sure, after one knows, after a week of reading, compiling, testing etc. even this manual makes sence, but the writer forgot to write the manual for people who dont know.

Perhaps it would have helped to have used Supercharge, the compiler previously released by Digital Precision, because reference is made to commands previously implemented in Supercharge. Well enough, let me give you an example of one item quite important to running a Turbo compiled program. This is something which has eludet my trial and error method to this day, and I finally gave up. To explain what this is all about, let me fill you in; Turbo compiled programs need a toolkit runtime version to be present to work, if toolkit commands have been used within the compiled program. One such command is Link_Load, which will link load multi tasking programs which rely on each other for certain data.

It reads:

Runtime command support

The runtime version allows developers to call toolkit routines from within compiled programs, but restricts interpretative use. All of the tookit commands and functions are supported from within Super-

charged or Turbocharged code, with the exception of these compiler directives:
IMPLICIT%, IMPLICIT$, EXTERNAL, GLOBAL, DATA_AREA, REFERENCE, WHEN_ERROR, END_WHEN, SNOOZE, CHARGE, PROCEDURE, FUNCTION, OPTION_CMD$, ERLIN%, ERNUM%
These are all ignored by Supercharge and translated into compiler specific code by Turbo, so you may still use all of these features in commercial Turbocharged programs. You must have the standard Toolkit loaded when you compile programs using these words. The resultant task will run under runtime toolkit, even though the words are not defined.
In general any attempt to use Toolkit commands in interpreted BASIC when the runtime toolkit is loaded will cause a BAD PARAMETER or not IMPLEMENTED error report. However, to allow application to start up reasonably easely, the command-file keyword END_CMD will work as normal, and EXECUTE/_A/_W and LINK_LOAD/_A/_W will work if their only parameters are file name strings. Names must be in quotation marks and channel numbers, parameters and priorities are only supported in compiled programs. If these facilities are vital they must be provided through a startup task which loads others appropriately.
End of text.

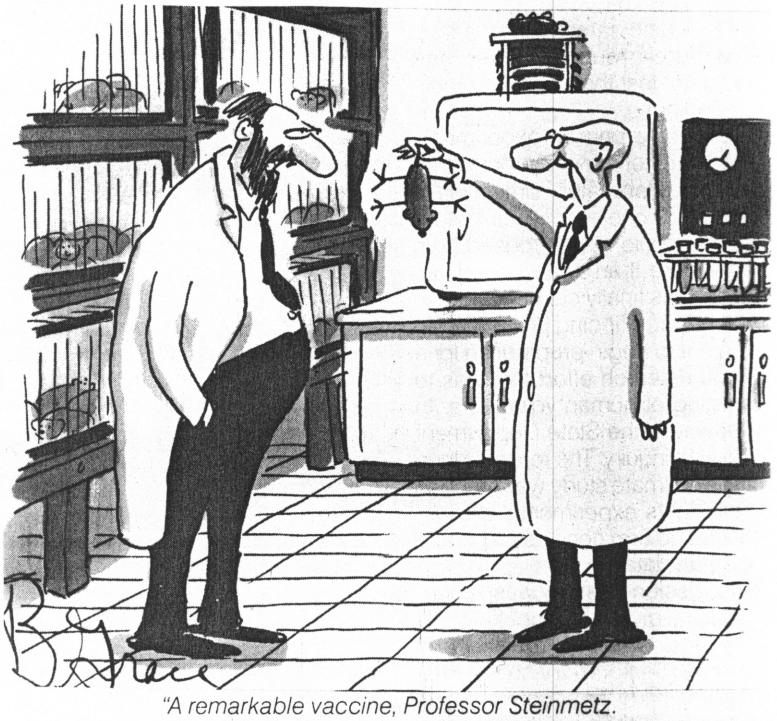
Is it clear? or is it what? Does this not mean that I can use the command LINK_LOAD to load tasks from a BASIC loader? But tell me, what is a file name string, is it a name$? is it a$ which holds the name? Well whatever I had tried, it didn't work. I even wrote a startup task to LINK_LOAD the other tasks, but no go. Well, this is only one example of how the manual has been written, nowhere is there an explanation of what a file name string is, and so it goes on and on. Maybe I'm not into computers long enough, or like I said before, it is written in a language I dont understand, sure looks like english though.

Other than the problem of interpreting the manual, it is an excellent compiler, fast when compiling, and fast when running the code. I compiled four task for the terminal program I wrote, and it works. I got around loading the run time version of toolkit by loading the standard version, but there were some toolkit commands in some routines I had added, which did not run, and my suspicion is, it is do to the absence of the run time version. The way out of such delema? Delete the routine!

Yes, sooner or later I will become efficient in using this compiler, but wouldn't it be nice if one could look things up in the manual? I guess this is not the first or only manual written like that, but I have seen many, and this one ranks in the top ten when it comes to being hard to understand.

Well that's it for this month, I don't know what the next SQ NOTES will be all about, but I'll think of something.

'till next month...R.A.H.



"A remarkable vaccine, Professor Steinmetz.
But bear in mind that hamsters very seldom catch Dutch elm disease."

M/TERM PATCH For AERCO I/F & Printer

This program from SINCUS and Dave Schoenwetter will allow you to use a full size printer from your TS 2068, TS2050 modem and Smart Term II. It should work on most Epson compatable printers.

```
  11 REM by Dave Schoenwetter, 1335 F
arm to Market Rd. Endwell NY 13760
 100 INPUT "Do You have MTERM CODE LO
DED?","(Y/N)";a$
 110 IF a$="Y" or a$="y" THEN GO TO V
AL "4000"
```

(Ed. note using a$=="y" will check both upper and lower case value of a character.)

```
 120 CLS: PRINT "Please Load MTERM pr
ogram"
 125 LOAD "" CODE
 130 PRINT AT 0,0;"MTERM IS NOW LOADE
D"
 200 STOP
4000 RESTORE 4100
4010 FOR f=59173 TO 59175: GO SUB 450
0: NEXT f
4020 FOR f=59188 TO 59190: GO SUB 450
0: NEXT f
4030 FOR f=58618 TO 58833: GO SUB 450
0: NEXT f
4040 PRINT "Press CONT ENTER to Save
Modified M/Term on Tape.": STOP: SAVE
"MtermPatch" CODE 54016,7721: STOP
4100 DATA 195,126,229
4110 DATA 195,178,229
4120 DATA 42,232,238,237,75,236
4130 DATA 238,3,125,185,32,7
4140 DATA 124,184,32,3,195,80
4150 DATA 229,62,127,219,254,31
4160 DATA 210,80,229,219,127,230
4170 DATA 16,32,242,126,254,10
4180 DATA 32,2,62,0,254,12
4190 DATA 32,2,62,0,205,48
4200 DATA 229,35,195,2,229,0
4210 DATA 211,127,0,219,127,201
4220 DATA 0,0,0,0,0,0,0,0,0,0,0,0,0,0
,0,0,0,0,0,0,0,0,0,0,0,0,0,0
4230 DATA 62,13,205,48,229,62,13
4240 DATA 13,205,48,229,62,13
4250 DATA 205,49,229,33,117,239
4260 DATA 54,13,6,32,43,54
4270 DATA 32,16,252,125,50,231
4280 DATA 238,201,33,195,229,126
4290 DATA 167,32,4,62,35,119
4300 DATA 201,175,24,251,203,79
4310 DATA 194,40,231,245,197,229
4320 DATA 42,176,229,237,75,174
4330 DATA 229,237,66,32,4,225
4340 DATA 193,241,201,219,127,230
4350 DATA 16,32,246,10,205,48
4360 DATA 229,3,62,96,184,32
4370 DATA 3,1,0,94,237,67
4380 DATA 174,229,24,227,0,94
4390 DATA 0,94,229,219,115,254
4400 DATA 12,40,4,254,10,32
4410 DATA 1,175,245,42,176,229
4420 DATA 119,35,62,96,188,32
4430 DATA 3,33,0,94,34,176
4440 DATA 229,241,225,201
4500 READ a: POKE f,a: PRINT f, P
EEK f: RETURN
```

Sinclair Vendors

In conjunction with getting ready to host the 1990 Sinclair Computer Fest, I have been contacting Sinclair vendors to see if a) they are still an active vendor and b) they would be interested in attending the Milwaukee fest. I will print new arrivals each month & a complete list in September.

Promise Land Electronics, D. Elliott,
RT1, Box 117, Cabool, MO 65689.

RMG Enterprises, Rod Gowen,
1419 1/2 7th St. Oregon City, OR 97045

Compware - England,
57 Repton Dr. Haslington Crewe CW1 1SA

Sector Software - England
39 Wray Crescent,Ulnes Walton,Leyland,
Lancashire PR5 3NH

TK Computerware - England
Stone Street,North Stanord,Ashford,
Kent CT25 6DF

Mechanical Design Analysis Consultants
1235 Madera St. Dubuque IA 52001

This part of the list are vendors that are no longer at their current address and have no forwarding address or are no longer selling Sinclair products.

SimuLusion,
P.O. Box 2382, La Jolla, CA 92038

PRINTERS AND QUILL

Setting up a printer in Quill is not a very difficult task. Although it can be time consuming. You start by LRUN INSTALL_BAS from the Quill media. If using MDV then use that. FLP or any other device you should convert first. After LRUNing the program will ask for the device location. I am using disk so I used FLP1 and pressed enter. Now it asks for type of port. Standard serial (ser1 or ser2) or a parallel or other non-standard port. I use ser1 for my printer port. The program now begins loading the Editor program so you can change the print driver codes.

After loading the top portion of the screen contains the Edit control keys and their usage. The rest of the screen contains the current printer loaded and other printer types available. Using the UP/DOWN arrows move the cursor to the desired printer and press enter. If you don't want any of the pre-programmend entries choose other. If you choose OTHER press F2 to start editing the printer. Change the name to a meaningful one or change the Port, Baud, Parity, Lines/page, Char. /Line and/or any of the control code lines. Please note all necessary codes must be placed in one line. For example if the control code requires an escape code before the control code it must be on the line. If a number is to follow it must be there. Use commas to connect the codes. For example; 27,61,0. The 27 is the escape code, the 61 is a control code and the 0 is a modifier to the control code. Preamble - This is used to set up the printer prior to the start of printing. Postamble - What the printer should do after printing is completed. The rest are self-explainitory except for Translate. Translate codes go into effect when the ASCII code is embedded in the print line where required. What ever is the first in the translate string is the control code. When that code is encountered the Translate will take effect. If you use the ASCII code for the ^ then when ever ^ is encountered that translate series will take effect. You've 10 of them.

GK ENTERPRISES

Your Computer Supply Source

No need to wait for a sale.

Our prices are low everyday

Wide selection of printer ribbons

AXIOM C. ITOH EPSON OKIDATA

PANASONIC STAR AND MANY MORE.

****
SMUG SPECIAL
****

2700 sheets 9 1/2 x 11 20# Microperf $23.50

****
* 546-0111 *
****

8634 W. National Avenue West Allis WI 53227

TS2068 Utilities

This month the program ideas and hints are from T/S 2068 Basics and Beyond. I hope you find them useful.

This program is written to display the power of the "POINT" command. It will draw a maze; then check for walls with the POINT command, as you guide the dot through the maze with the arrow keys.

```
 10 PLOT 0,10: LET d=40
 15 FOR i=1 to 2: FOR n=1 to 12
 20 READ a,b: DRAW a,b: NEXT n
 25 PLOT 10,0:LET d=20:RESTORE:NEXT i
 30 DATA 20,0,0,50,30,0,0,60,d,0,30,0
 35 DATA
0,-30,20,0,0,-40,20,0,0,-20,30,0
 40 LET x=5: LET y=5
 45 PLOT x,y
 50 IF INKEY$ ="" THEN GO TO 50
 55 LET a$=INKEY$
 60 LET px=x: LET py=y
 65 IF a$="5" THEN LET x=x-1
 70 IF a$="6" THEN LET y=y-1
 75 IF a$="7" THEN LET y=y+1
 80 IF a$="8" THEN LET x=x+1
 85 IF POINT(x,y) THEN GO TO 100
 90 PLOT OVER 1;px,py
 95 GO TO 45
100 BEEP .25,1
105 LET x=px: LET y=py: GO TO 45
```

Lines 10 to 35 DRAWs a simple maze. Since the two lines are basically the same, the same DATA is used for each, beginning at a different PLOT point. The one segment in the middle must be of a different size for the top and bottom of the path, so a variable is placed in the DATA statement for it.

Lines 40 to 45 Puts a dot on the screen for steering through the path. Line 50 Waits for a key press.

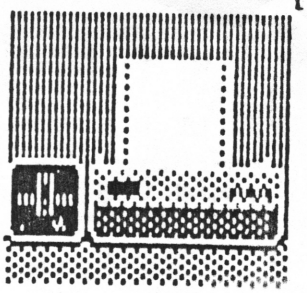
Line 60 Saves the dot position in variables px & py for later erasure. Lines 65 to 80 Assigns new values to x and y in response to the key press.

Line 85 If the spot indicated by the new x,y coordinate already has an INK pixel, indicating you have bumped into a wall, then go to subroutine. Line 90-95 Erases the dot and loops back to print it in the new position.

Lines 100-105 If you have hit a wall, resets the x and y values to what they were before you pressed the cursor keys and loops back for another try.

NEED A PRINTER?

WE CAN HELP!



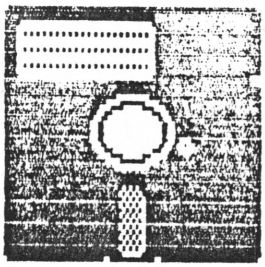
RMG can supply many top brands at low prices. Names like: CITIZEN-STAR-ALPS PANASONIC-OKIDATA-EPSON-SEIKOSHA BROTHER AND MORE!

*** CHECK THESE OUT! ***

PANASONIC KX1080i	ONLY $175.00
PANASONIC KX1091i	ONLY $199.95
STAR NX1000 MULTI-FONT	ONLY $180.00
STAR NX1000 RAINBOW	ONLY $239.95
STAR NX2400 24-PIN	ONLY $339.95
SEIKOSHA SP-180AI	ONLY $159.95
CITIZEN 120D	ONLY $159.95
CITIZEN 180D	ONLY $175.00

Please add $15 each for sh. & ins. We also have MANY used printers in stock-write or call!

RMG ENTERPRISES
1419 1/2 7TH STREET
OREGON CITY, OREGON 97045
503/655-7484 * NOON-10 TUE-SAT



2068 DRIVES!

WE'RE THE LARGEST-

LARKEN dealer in the U. S.! That's why we can offer more 2068 systems than any one at better prices!! This is our lowest priced system--they start here - many more of these COMPLETE DISK SYSTEMS! Start with this one for only--

$180.00!

(Plus $12 P&H)

System includes 2-3" SSDD drives case/power supply/cable AND the LARKEN LKDOS I/F with s/w. WHERE HAVE YOU SEEN SUCH A DEAL? System is also compatible with the new LARKEN RAMDISK. Don't wait!

VISA MasterCard

RMG ENTERPRISES
1419 1/2 7TH STREET
OREGON CITY, OREGON 97045
503/655-7484 * NOON-10 TUE-SAT

PRESIDENTS MESSAGE

Well we are continuing with checking into the 1990 Sinclair Computer Fest and, will have a report at the August meeting. If you want to be involved **show up.** We will need hands for the digitizer board. Check out, assembly and what have you. I know it is summer but we only ask for a few hours of your time. The club project needs hands and help.

-Ham & Computer Swapfest, Sunday Oct. 15, 1989 Waukesha County Expo. $2 in advance $3 at the door. 7am to 1pm.

-Late Fall Ham Fest, Sunday Oct. 29, 1989 Lake County Fairgrounds, Rts. 45 & 20 Grayslake, IL. 7am to ?. $3.

I have one question and that is why are there so few computers at the meeting? I know many of you are using them for exciting things and want to show them off. Well the meeting is your chance to preen you feathers and display your beauty. We need you to make a good meeting.

Thats it for now. See you Aug. 2nd.

Garbage In Garbage Out Or In Otherwords The Meeting

With only 14 members in attendence the July meeting was called to order.

We discussed the Newsletter. It seems two members did not get their newsletter by the meeting date. The problem was the holiday, 4th of July, falling on Tuesday just prior to the meeting. Since there was no mail delivery everything got pushed back one day. Sorry people will try to avoid this problem in the future.

Dick reported that he will be picking up the Digitiser boards for the next meeting. So come prepared to pick up your board.

Bill reported on the mailing to vendors to find out if they were still selling Sinclair hardware/software and it seems many are still doing so and we have found a few new names. Keep checking the newsletter to find out who they are.

COMPUTER AND PRINTER REPAIR

FACTORY AUTHORIZED SERVICE

- Commodore
- Panasonic
- Amiga
- Brother
- NEC
- Samsung
- Apple compatibles
- Star Micronics
- Atari
- Citizen
- C.Itoh
- Silver-Reed
- Goldstar
- IBM compatibles

● *and other popular brands*

SYSTECH ELECTRONICS

10953 West Mitchell Street

475-7475

Mon.- Fri. 9-7
Saturday 12-4

3 blocks south of Greenfield Ave. and 1 block west of HWY 100

The Sinclair Milwaukee Users Group (SMUG)

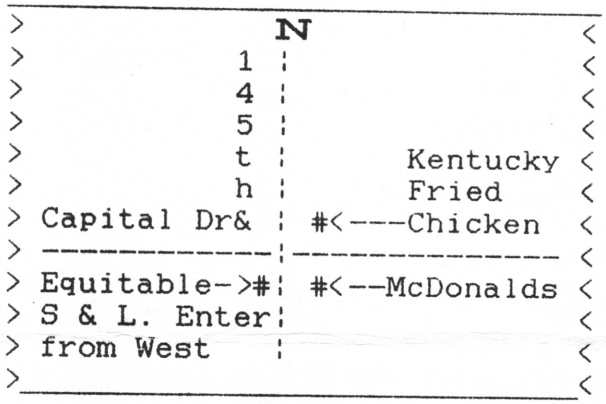
We are a not-for-profit group devoted to serving the interests of those who own, use, and/or are interested in the Timex/Sinclair family of computers.

Editor and contact person is:
Bill Heberlein (414) 527 2191.

SMUG maintains a gratis exchange of newsletters with approximately 30 Users Groups across the U.S. and Canada. Clubs not sending newsletters for more than 6 months are removed from our mailing list.

Newsletter subscription is available for only $10 per year to non members or free with a club membership. A club membership is $20 per year for a family membership.

Advertising cost for 1/2 page ad runing for six months is $10. The ad copy may be changed each month but you must supply the copy.



FIRST CLASS MAIL

SMUG BYTES
5052 N. 91st Street
Milwaukee WI 53225
Address Correction Requested

Donald Lambert
3310 CLOVER DR. SW.
Cedar Rapids , IA
52404

The next meeting of SMUG will be held on:

Wednesday, August 2,1989
6pm Set Up
6:30 Members Demo
7:30 Business Meeting
8:30 Digitizer Boards
10:30 Clean Up

Location:
Equitable Savings and Loan,
145th and Capital Drive,
Milwaukee Wisconsin